

03040202-120
(Lynches River)

General Description

Watershed 03040202-120 is located in Florence County and consists primarily of the **Lynches River** and its tributaries from Sparrow Swamp to its confluence with the Pee Dee River. The watershed occupies 108,639 acres of the Lower Coastal Plain region of South Carolina. The predominant soil types consist of an association of the Rains-Lynchburg-Cantey-Chastain-Norfolk series. The erodibility of the soil (K) averages 0.22; the slope of the terrain averages 1%, with a range of 0-2%. Land use/land cover in the watershed includes: 30.6% forested land, 29.2% scrub/shrub land, 27.6% agricultural land, 12.0% forested wetland (swamp), 0.4% urban land, 0.1% water, and 0.1% nonforested wetland (marsh).

This segment of the Lynches River accepts drainage from its upstream reaches together with Mill Branch, Carter Creek (Big Branch), Bay Branch (Polecat Branch), McCall Branch (Taylor Branch), and Ward Mill Branch. Further downstream, Cypress Branch enters the river followed by Green Spring Branch (Cox Bay Branch, Horse Branch), Millpond Branch, High Hill Drainage Canal, the Big Swamp Watershed, Deep Creek, and the Lake Swamp Watershed. There are several recreational ponds (totaling 67.3 acres) in this watershed and a total of 179.8 stream miles, all classified FW. The Lynches River State Park extends across the upper portion of the watershed.

Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
PD-041	P	FW	LYNCHEs RIVER AT US 52 NEAR EFFINGHAM
PD-281	P	FW	LYNCHEs RIVER AT S-21-49 5 MILES NW JOHNSONVILLE

Lynches River - There are two monitoring sites along this section of the Lynches River. At the upstream site (**PD-041**), aquatic life uses are fully supported; however, there is a significant decreasing trend in dissolved oxygen and a significant increasing trend in turbidity. There was also a very high concentration of zinc measured in 1996. There is a significant decreasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported due to fecal coliform bacteria excursions; however, there is a significant increasing trend in fecal coliform bacteria concentration.

At the downstream site (**PD-281**), aquatic life uses are also fully supported; however, there is a significant decreasing trend in dissolved oxygen and a significant increasing trend in turbidity. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. A high concentration of zinc and very high concentrations of copper and lead were detected in the 1994 sediment sample, and P,P' DDE (a metabolite of DDT) was detected in the 1998 sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. Recreational uses are fully supported.

A fish consumption advisory has been issued by the Department for mercury and includes the Lynches River within this watershed (see advisory p.35).

NPDES Program

Active NPDES Facilities

RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD) COMMENT	NPDES# TYPE LIMITATION
LYNCHEs RIVER CITY OF JOHNSONVILLE/EAST PLT PIPE #: 001 FLOW: 3.0 WQL FOR TRC,NH3N	SC0025933 MAJOR DOMESTIC WATER QUALITY
LYNCHEs RIVER MCCALL FARMS INC. PIPE #: 001 FLOW: 0.10	SC0039284 MINOR INDUSTRIAL EFFLUENT
LYNCHEs RIVER WELLMAN INC./JOHNSONVILLE PIPE #: FLOW: 0.13	SCG250140 MINOR INDUSTRIAL EFFLUENT
LYNCHEs RIVER CITY OF LAKE CITY/LAKE SWAMP WWTP PIPE #: 001 FLOW: 4.20 IN SUMMER; 6.0 IN WINTER WQL FOR NH3N	SC0046311 MAJOR DOMESTIC WATER QUALITY

Nonpoint Source Management Program

Land Disposal Activities

Landfill Activities

SOLID WASTE LANDFILL NAME FACILITY TYPE	PERMIT # STATUS
FLORENCE COUNTY LANDFILL MUNICIPAL	DWP-021 CLOSED
WELLMAN INC. LANDFILL INDUSTRIAL	IWP-092 -----

Land Application Sites

LAND APPLICATION SYSTEM FACILITY NAME	PERMIT # TYPE
SPRAYFIELD FLORENCE COUNTY/DIST. #6	ND0070424 DOMESTIC

Mining Activities

MINING COMPANY MINE NAME	PERMIT # MINERAL
CAROLINA SAND, INC. JOHNSONVILLE PLANT	0648-41 SAND

Growth Potential

There is a low potential for growth in this watershed, which contains the Town of Coward and portions of the Towns of Scranton and Salem. Water service is available in the Towns of Coward and Scranton, but sewer service is available only in Scranton. The watershed is bisected by U.S. Hwy. 52 and a rail line running north/south and by U.S. Hwy. 378 running east/west. U.S. Hwy. 52 is a major highway route from the City of Florence to the City of Charleston. Portions not already widened to four lanes are expected to be within 10-15 years, which could encourage industrial growth.